Lecture #9

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Class Assignment

- find information on the function
- identify x variable (units, appropriate range)
- identify y variable (units, appropriate range)
- identify model parameters (interpretations?)
- create functions and plots showing how parameters affect the relationship between x and y

Group Assignments

1. Exponential Growth
2. Logistic Growth
3. Ricker Equation
4. Type II Functional Response (Michaelis-Menten)
5. von Bertalanffy Growth Curve

Summary of Equations

Name	Equation	X Variable	Y Variable	Parameters
Exponential Growth	$N_t = N_0 e^{rt}$	t	N	N_0, r
Logistic Growth	$N_t = rN_{t-1}(1 - \frac{N_{t-1}}{K})$	t	N	N_0, r, K
Ricker Equation	$N_t = N_{t-1} e^{r(1-\frac{N_{t-1}}{K})}$	t	N	N_0, r, K
Holling Type II	$F = \frac{aV}{1+ahV}$	V	F	a, h
von Bertalanffy Growth	$M_t = M_\infty - (M_\infty - M_t)e^{-kt}$	t	M	M_∞, k